

IN THE CLAIMS:

1 1. (Currently Amended) A mobile communication terminal for performing
2 reception and transmission using an adaptive array method, the mobile communication terminal
3 being provided with (a) a plurality of antennas, (b) reception means for forming a directivity
4 pattern for receiving a desired reception signal from a base station and receiving the reception
5 signal from the base station using the formed directivity pattern, and (c) transmission means for
6 transmitting a transmission signal using the directivity pattern formed in reception, the mobile
7 communication ~~terminal~~ method comprising: .

8 detection means for detecting a reception error in the reception signal; and

9 transmission control means for controlling the transmission means when the
10 detection means detects the reception error so that a pattern different from the directivity pattern
11 formed in reception is formed and the transmission signal is transmitted in the formed pattern
12 instead of the directivity pattern formed in reception.

1 2. (Original) The mobile communication terminal of Claim 1,
2 wherein when the detection means detects the reception error, the transmission
3 control means controls the transmission means so that the non-directional pattern is formed using
4 one of the plurality of antennas, and the transmission signal is transmitted in the non-directional
5 pattern.

1 3. (Original) The mobile communication terminal of Claim 2,
2 wherein when the detection means detects the reception error, the transmission
3 control means controls the transmission means so that the non-directional pattern is formed using

4 one of the plurality of antennas that has the largest antenna gain, and the transmission signal is
5 transmitted in the non-directional pattern.

1 4. (Original) The mobile communication terminal of Claim 2 further comprising:
2 selection means for measuring a quality of the reception signal for each of the
3 plurality of antennas and selecting an antenna with the highest reception quality,
4 wherein when the detection means detects the reception error, the transmission
5 control means controls the transmission means so that the non-directional pattern is formed using
6 the antenna selected by the selection means, and the transmission signal is transmitted in the non-
7 directional pattern.

1 5. (Currently Amended) A communication method used for a mobile
2 communication terminal for performing reception and transmission using an adaptive array
3 method, the mobile communication terminal being provided with (a) a plurality of antennas, (b)
4 reception means for forming a directivity pattern for receiving a desired reception signal from a
5 base station and receiving the reception signal from the base station using the formed directivity
6 pattern, and (c) transmission means for transmitting a transmission signal using the directivity
7 pattern formed in reception, the mobile communication ~~terminal~~ method comprising:
8 detection step for detecting a reception error in the reception signal; and
9 transmission control step for controlling the transmission means when the
10 detection step detects the reception error so that a pattern different from the directivity pattern
11 formed in reception is formed and the transmission signal is transmitted in the formed pattern
12 instead of the directivity pattern formed in reception.

1 6. (Original) The communication method of Claim 5,
2 wherein when the detection step detects the reception error, the transmission
3 control step controls the transmission means so that the non-directional pattern is formed using
4 one of the plurality of antennas, and the transmission signal is transmitted in the non-directional
5 pattern.

1 7. (Original) The communication method of Claim 6,
2 wherein when the detection step detects the reception error, the transmission
3 control step controls the transmission means so that the non-directional pattern is formed using
4 one of the plurality of antennas that has the largest antenna gain, and the transmission signal is
5 transmitted in the non-directional pattern.

1 8. (Original) The communication method of Claim 6 further comprising:
2 selection step for measuring a quality of the reception signal for each of the
3 plurality of antennas and selecting an antenna with the highest reception quality,
4 wherein when the detection step detects the reception error, the transmission
5 control step controls the transmission means so that the non-directional pattern is formed using
6 the antenna selected by the selection step, and the transmission signal is transmitted in the non-
7 directional pattern.

1 9. (Currently Amended) A program to be executed by a computer in a mobile
2 communication terminal for performing reception and transmission using an adaptive array
3 method, the program being stored on a computer-readable recording medium, the mobile
4 communication terminal being provided with (a) a plurality of antennas, (b) reception means for

5 forming a directivity pattern for receiving a desired reception signal from a base station and
6 receiving the reception signal from the base station using the formed directivity pattern, and (c)
7 transmission means for transmitting a transmission signal using the directivity pattern formed in
8 reception, the ~~mobile communication terminal~~ program comprising:

9 detection step for detecting a reception error in the reception signal; and
10 transmission control step for controlling the transmission means when the
11 detection step detects the reception error so that a pattern different from the directivity pattern
12 formed in reception is formed and the transmission signal is transmitted in the formed pattern
13 instead of the directivity pattern formed in reception.

1 10. (Original) The program of Claim 9,
2 wherein when the detection step detects the reception error, the transmission
3 control step controls the transmission means so that the non-directional pattern is formed using
4 one of the plurality of antennas, and the transmission signal is transmitted in the non-directional
5 pattern.

1 11. (Original) The program of Claim 10,
2 wherein when the detection step detects the reception error, the transmission
3 control step controls the transmission means so that the non-directional pattern is formed using
4 one of the plurality of antennas that has the largest antenna gain, and the transmission signal is
5 transmitted in the non-directional pattern.

12. (Original) The program of Claim 10 further comprising:

selection step for measuring a quality of the reception signal for each of the plurality of antennas and selecting an antenna with the highest reception quality, wherein when the detection step detects the reception error, the transmission control step controls the transmission means so that the non-directional pattern is formed using the antenna selected by the selection step, and the transmission signal is transmitted in the non-directional pattern.

13. (New) A mobile communication terminal for performing reception and transmission using an adaptive array method, the mobile communication terminal being provided with (a) a plurality of antennas, (b) a reception circuit which multiplies a signal received using each of the plurality of antennas by a weight vector, and (c) a transmission circuit which transmits the multiplied signal using each of the plurality of antennas, the reception circuit forming a directivity pattern for receiving a desired reception signal from a base station and receiving the reception signal from the base station using the formed directivity pattern, and the transmission circuit transmitting a transmission signal using the directivity pattern formed in reception, the mobile communication terminal comprising:

detection means for detecting a reception error in the reception signal; and

transmission control means for controlling the transmission circuit when the detection means detects the reception error so that a pattern different from the directivity pattern formed in reception is formed and the transmission signal is transmitted in the formed pattern instead of the directivity pattern formed in reception.

1 14. (New) The mobile communication terminal of Claim 13,
2 wherein when the detection means detects the reception error, the transmission
3 control means controls the transmission circuit so that a non-directional pattern is formed using
4 one of the plurality of antennas, and the transmission signal is transmitted in the non-directional
5 pattern.

1 15. (New) The mobile communication terminal of Claim 14,
2 wherein when the detection means detects the reception error, the transmission
3 control means controls the transmission circuit so that the non-directional pattern is formed using
4 one of the plurality of antennas that has the largest antenna gain, and the transmission signal is
5 transmitted in the non-directional pattern.

1 16. (New) The mobile communication terminal of Claim 14 further comprising:
2 selection means for measuring a quality of the reception signal for each of the
3 plurality of antennas and selecting an antenna with the highest reception quality,
4 wherein when the detection means detects the reception error, the transmission
5 control means controls the transmission circuit so that the non-directional pattern is formed using
6 the antenna selected by the selection means, and the transmission signal is transmitted in the non-
7 directional pattern.

1 17. (New) A communication method used for a mobile communication terminal for
2 performing reception and transmission using an adaptive array method, the mobile
3 communication terminal being provided with (a) a plurality of antennas, (b) a reception circuit
4 which multiplies a signal received using each of the plurality of antennas by a weight vector, and
5 (c) a transmission circuit which transmits the multiplied signal using each of the plurality of
6 antennas, the reception circuit forming a directivity pattern for receiving a desired reception
7 signal from a base station and receiving the reception signal from the base station using the
8 formed directivity pattern, and the transmission circuit transmitting a transmission signal using
9 the directivity pattern formed in reception, the mobile communication method comprising:

10 detection step for detecting a reception error in the reception signal; and

11 transmission control step for controlling the transmission circuit when the
12 detection step detects the reception error so that a pattern different from the directivity pattern
13 formed in reception is formed and the transmission signal is transmitted in the formed pattern
14 instead of the directivity pattern formed in reception.

1 18. (New) The communication method of Claim 17,

2 wherein when the detection step detects the reception error, the transmission
3 control step controls the transmission circuit so that a non-directional pattern is formed using one
4 of the plurality of antennas, and the transmission signal is transmitted in the non-directional
5 pattern.

1 19. (New) The communication method of Claim 18,
2 wherein when the detection step detects the reception error, the transmission
3 control step controls the transmission circuit so that the non-directional pattern is formed using
4 one of the plurality of antennas that has the largest antenna gain, and the transmission signal is
5 transmitted in the non-directional pattern.

1 20. (New) The communication method of Claim 18 further comprising:
2 selection step for measuring a quality of the reception signal for each of the
3 plurality of antennas and selecting an antenna with the highest reception quality,
4 wherein when the detection step detects the reception error, the transmission
5 control step controls the transmission circuit so that the non-directional pattern is formed using
6 the antenna selected by the selection step, and the transmission signal is transmitted in the non-
7 directional pattern.

1 21. (New) A program to be executed by a computer in a mobile communication
2 terminal for performing reception and transmission using an adaptive array method, the program
3 being stored on a computer-readable recording medium, the mobile communication terminal
4 being provided with (a) a plurality of antennas, (b) a reception circuit which multiplies a signal
5 received using each of the plurality of antennas by a weight vector, and (c) a transmission circuit
6 which transmits the multiplied signal using each of the plurality of antennas, the reception circuit
7 forming a directivity pattern for receiving a desired reception signal from a base station and
8 receiving the reception signal from the base station using the formed directivity pattern, and the
9 transmission circuit transmitting a transmission signal using the directivity pattern formed in
10 reception, the program comprising:

11 detection step for detecting a reception error in the reception signal; and
12 transmission control step for controlling the transmission circuit when the
13 detection step detects the reception error so that a pattern different from the directivity pattern
14 formed in reception is formed and the transmission signal is transmitted in the formed pattern
15 instead of the directivity pattern formed in reception.

1 22. (New) The program of Claim 21,
2 wherein when the detection step detects the reception error, the transmission
3 control step controls the transmission circuit so that a non-directional pattern is formed using one
4 of the plurality of antennas, and the transmission signal is transmitted in the non-directional
5 pattern.

1 23. (New) The program of Claim 22,

2 wherein when the detection step detects the reception error, the transmission
3 control step controls the transmission circuit so that the non-directional pattern is formed using
4 one of the plurality of antennas that has the largest antenna gain, and the transmission signal is
5 transmitted in the non-directional pattern.

1 24. (New) The program of Claim 22 further comprising:

2 selection step for measuring a quality of the reception signal for each of the
3 plurality of antennas and selecting an antenna with the highest reception quality,
4 wherein when the detection step detects the reception error, the transmission
5 control step controls the transmission circuit so that the non-directional pattern is formed using
6 the antenna selected by the selection step, and the transmission signal is transmitted in the non-
7 directional pattern.